Date: Mon, 8 Nov 93 17:01:19 PST

From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>

Errors-To: Info-Hams-Errors@UCSD.Edu

Reply-To: Info-Hams@UCSD.Edu

Precedence: Bulk

Subject: Info-Hams Digest V93 #1325

To: Info-Hams

Info-Hams Digest Mon, 8 Nov 93 Volume 93 : Issue 1325

Today's Topics:

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu> Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu> Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

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Date: 8 Nov 93 18:08:48 GMT From: news-mail-gateway@ucsd.edu Subject: \* SpaceNews 08-Nov-93 \*

To: info-hams@ucsd.edu

SB NEWS @ AMSAT \$SPC1108 \* SpaceNews 08-Nov-93 \*

BID: \$SPC1108

SpaceNews

#### MONDAY NOVEMBER 8, 1993

SpaceNews originates at KD2BD in Wall Township, New Jersey, USA. It is published every week and is made available for unlimited distribution.

October 22, 1993

MARS OBSERVER INVESTIGATION BOARD STATUS REPORT

The Mars Observer Investigation Board held its third set of meetings, Wednesday through Friday, October 20-22, in Washington, D.C.

Since the last set of board meetings, technical teams conducted reviews of specific Mars Observer subsystems at the Jet Propulsion Laboratory, Pasadena, California, and Martin Marietta Aerospace, East Windsor, New Jersey.

Plausible scenarios for what could have caused the loss of communication with the Mars Observer spacecraft are still being developed and technically challenged.

The board previously had recommended a program to attempt to activate the Balloon Relay Experiment, an instrument onboard Mars Observer. After several attempts to activate the experiment, ground station engineers did not detect any return signals. The NASA Deep Space Network stationed at Goldstone, California, and the Jodrell Bank Observatory, United Kingdom, were used. Non-activation of the Balloon Relay Experiment leads the board to conclude that a Mars Observer failure scenario involving only the spacecraft downlink portion of the telecommunications system is highly unlikely.

In the coming weeks, the board will evaluate results of hardware and software tests, and in some cases, computer simulations of various spacecraft subsystems.

Late November is still the target timeframe for delivering a final report to the NASA Administrator, who will make the report publicly available.

[Info via NASA]

# \* STS-58 FAREWELL MESSAGE \*

The following packet radio beacon from Space Shuttle Columbia was received by Dave, N6JLH in Northern California on 31-Oct-93:

#### W5RRR-1>SAREX <UI>:

This is STS-58 SAREX Robot station W5RRR-1 onboard the Space Shuttle Columbia.

### W5RRR-1>QST <UI>:

73s from Columbia on our last day on orbit. We have a beautiful planet. Thanks for participating in this mission with us.

The STS-58 Crew.

[Info via N6JLH]

#### \* TEXAS BALLOON LAUNCH \*

\_\_\_\_\_

The fifth flight of the North Texas Balloon Project will be on 13-Nov-93 at 08:30 CDT from a yet to be decided launch point south of Fort Worth, Texas.

On board for this flight will be a cross band voice repeater with an uplink on 445.800 MHz, and a downlink on 147.580 MHz. Also on board will be a GPS satellite receiver linked to a packet transmitter. This will allow ground stations to 'see' where and how high the payload is. The packet telemetry downlink will be on 144.290 MHz, and ground stations may also digipeat through this beacon using an uplink frequency of 145.890 MHz. The callsign for the digipeater is W5SJZ-6.

A launch net will be conducted on 7155 KHz starting about 60 minutes or so prior to launch. A local net will be conducted on 146.760 MHz for those in the Fort Worth, Texas area. Net Control callsign will be W5SJZ (Lockheed Amateur Radio Club)

Reception reports are welcomed. Please contact the mission coordinators on the HF or VHF nets. QSL cards will be available for all who send in accurate reception reports on the high altitude balloon payload.

Questions regarding this mission should be directed to:

Ed, N5PQR @ N5AUX.#DFW.TX.USA.NOAM.

[Info via N5PQR]

#### \* OSCAR-13 NEWS \*

\_\_\_\_\_

\*\*\* AO-13 TRANSPONDER SCHEDULE \*\*\* 1993 Oct 25-Nov 15

Mode-B : MA 0 to MA 130 ! Mode-BS : MA 130 to MA 180 !

Mode-S : MA 180 to MA 205 !<- S transponder; B trsp. is OFF

Mode-S : MA 205 to MA 210 !<- S beacon only

Mode-BS: MA 210 to MA 226! Alon/Alat 210/0

Omnis : MA 240 to MA 80 ! Move to attitude 240/0, Nov 15 Please don't uplink to B, MA 180-205. Interferes with mode S.

\*\*\* A0-13 TRANSPONDER SCHEDULE \*\*\* 1993 Nov 15-Jan 31

Mode-B : MA 0 to MA 95 ! / Eclipses, max Mode-B : MA 95 to MA 180 ! OFF Dec 07 - 24. < duration 136

Mode-B : MA 180 to MA 220 ! \ minutes.

Mode-S : MA 220 to MA 230 !<- S transponder; B trsp. is OFF

Mode-BS : MA 230 to MA 226 ! Alon/Alat 240/0

Omnis : MA 250 to MA 150 ! Move to attitude 180/0, Jan 31 Please don't uplink to B, MA 220-230. Interferes with mode S.

[Info via G3RUH]

#### \* THANKS! \*

========

Thanks to all those who sent messages of appreciation regarding SpaceNews, especially:

IW1CXZ VU2LBW K3GLK N4TYS AA6TA

## \* FEEDBACK/INPUT WELCOMED \*

\_\_\_\_\_

Mail to SpaceNews should be directed to the editor (John, KD2BD) via any of the following paths:

FAX : 1-908-747-7107

PACKET: KD2BD @ N2KZH.NJ.USA.NA

INTERNET : kd2bd@ka2qhd.ocpt.ccur.com -or- kd2bd@amsat.org

MAIL : John A. Magliacane, KD2BD

Department of Engineering and Technology

Advanced Technology Center Brookdale Community College Lincroft, New Jersey 07738

U.S.A.

<--- SpaceNews: The first amateur newsletter read in space! -->>

/EX

- -

John A. Magliacane, KD2BD  $\star$  /\/  $\star$  Voice : 1-908-224-2948

-----

Date: 9 Nov 93 00:54:55 GMT From: news-mail-gateway@ucsd.edu

Subject: 20m dipole on 80m To: info-hams@ucsd.edu

Text item: Text\_1

>I'm running an HW-101 with an MFJ 941-D tuner into a 20m dipole.
>...but I get good results on 80m (low SWR, 100w forward, 1-5 w reflected >David J Adams, N9UXU Internet: djadams@silver.ucs.indiana.edu

David, ELNEC (antenna analysis program) says that your 20m dipole has a radiation impedence of around 1-j2000 on 80m. That means an antenna-end SWR of greater than 100/1 on whatever transmission line you are using. The 40m impedence is a little better at 12-j1000.

Almost none of your power is making it to the antenna. The obvious solution is a longer antenna. If you absolutely cannot put up a longer antenna, you can disconnect your transmission line at the transmitter end, short the two conductors together, and feed it as a single-ended "long-wire" on 80m using the "wire" output on your MFJ-941.

73, Cecil, kg7bk@indirect.com
(I do not speak for Intel on Internet)

------

Date: 8 Nov 93 23:05:05 GMT

From: ogicse!hp-cv!hp-pcd!hpcvsnz!tomb@network.ucsd.edu

Subject: characteristic impedance

To: info-hams@ucsd.edu

Gary Coffman (gary@ke4zv.atl.ga.us) wrote:

: Measure the SWR of the line with the far end unterminated. This will

: let you calculate line loss. This'll work even if your meter is of a : different characteristic impedance since infinity to 1 is still infinity : to 1 no matter what small difference there may be in the 1. Now terminate : the line in a known impedance. Measure the SWR and calculate what the line : impedance should be to give that reading. Now correct that for the difference, : if any, caused by your meter's impedance. That's your cable impedance.

Hmmm... Let's say I have a length of RG-62 (but don't know that's what it is), and it has an attenuation of about 5dB. If the length (in wavelengths) is right (odd number of 1/4 waves), that should give you pretty close to 1:1 SWR as measured with a 50 ohm SWR bridge. But a bit different electrical length (even number of 1/4 waves) could give you a 4:1 SWR, for the same attenuation. So I don't see how the first three sentences above work out...

BTW, this is the sort of thing I was thinking of when I posted a followup a few weeks ago suggesting that if you want to measure some line parameter (it was loss at that time), you should be careful to calibrate your measurements--to check them against some known values. I'll repeat it here: the loss, or the impedance, or the electrical length, isn't what's stamped on the line, or what's in a book, or what you measure: it is what it is. Any of the others is only an approximation. Measurements can come very close, but they can also be very far off if you happen to make an error in the application of the instruments you use or if the instruments are out of calibration. By using proper standards and procedures, you can minimize the measurement error, and probably get the best approximations through measurement.

As others have pointed out in a bit different context, you can do a lot toward checking the accuracy of a line measurement if you do the measurement over a range of frequencies. If the parameters you are trying to measure don't vary like you'd expect (and your expectations are right;-), then suspect the measurement.

Date: 9 Nov 93 00:36:03 GMT From: news-mail-gateway@ucsd.edu

Subject: Daily Solar Geophysical Data Broadcast for 07 November

To: info-hams@ucsd.edu

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 311, 11/07/93 10.7 FLUX=095 90-AVG=094 SSN=044 BKI=4243 3334 BAI=018 FLU1=3.1E+06 FLU10=1.2E+04 PKI=4243 3334 PAI=019 BGND-XRAY=A7.8 BOU-DEV=058,018,053,025,027,027,023,056 DEV-AVG=035 NT SWF=00:000 XRAY-MAX= B1.6 @ 2256UT XRAY-MIN= A5.6 @ 1603UT XRAY-AVG=A9.1NEUTN-MAX= +002% @ 2115UT NEUTN-MIN= -002% @ 1840UT NEUTN-AVG= -0.0% PCA-MAX= +0.1DB @ 1210UT PCA-MIN= -0.5DB @ 1420UT PCA-AVG= -0.0DB BOUTF-MAX=55371NT @ 2333UT BOUTF-MIN=55335NT @ 1546UT BOUTF-AVG=55351NT

ALERTS=\*\*245STRM:0000-2359UTC

!!END-DATA!!

NOTE: The Effective Sunspot Number for 06 NOV 93 was 34.0.

The Full Kp Indices for 06 NOV 93 are: 4- 3- 5- 50 4+ 4- 3+ 40

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Date: 8 Nov 93 01:56:43 GMT

From: psinntp!gdc!esun223!kurdzo@uunet.uu.net

Subject: GAP Eagle DX-VI Problems

To: info-hams@ucsd.edu

Recently I purchased a GAP Eagle DX-VI vertical HF antenna. The 10, 12, and 15 meter bands give very good SWR readings. However, I'm having problems with 17, 20, and 40. All three bands have unacceptably high SWR readings. On 40, the GAP seems to resonate up near the top of the band (rather than in the middle). On 20 and 17, the SWR doesn't seem to vary much with frequency.

I have called the guys at GAP three times now. They have given me many suggestions, but none of them have worked. I've tried the antenna on the ground as well as on my roof. I've tried 3 different types (and lengths) of coax. The antenna appears to work better on the ground, by the way. There are no large metal objects nearby. They keep telling me "If it's assembled correctly, and nothing nearby is coupling to it, it will work".

Has anyone else out there bought one of these and got it to work? Does anyone know the theory behind this antenna? There is a capacitor at the top of the antenna. The guy at GAP said this cap could be changed to change the center of 40m coverage. Has anyone else had to do this?

Please share any of your GAP experiences (good OR bad) with me.

Thanks,

- -

Jim Kurdzo AA1GZ General DataComm Middlebury, CT 06762-1299 (203) 574-1118 x6443

-----Date: Sat, 06 Nov 1993 12:43:05 From: concert!news-feed-1.peachnet.edu!darwin.sura.net!math.ohio-state.edu! sol.ctr.columbia.edu!news.kei.com!news.oc.com!utacfd.uta.edu!rwsys!ocitor! FredGate@decwrl.dec.com Subject: HDN Releases To: info-hams@ucsd.edu The following files were processed Saturday 11-06-93: [ HAM: Bulletins and Newsletters ] HAMNEWS ANART782.LZH ( 4739 bytes) ANART Bulletin 782 10/24/93 ANART783.LZH ( 4692 bytes) ANART Bulletin 793 10/31/93 ARLB108.LZH ( 578 bytes) ARRL Bulletin 11/02/93 ARLB109.LZH ( 1012 bytes) ARRL Bulletin 11/04/93 ARLD058.LZH ( 1698 bytes) ARRL DX Bulletin 11/04/93986 bytes) ARRL Propagation Bulletin 11/05/93 ARLP044.LZH ( OPDX133.LZH ( 2831 bytes) Ohio-Pa Packet Cluster DX Bulletin 11/01/93 RACES298.LZH ( 980 bytes) RACES Bulletin # 298 11/01/93 \_\_\_\_\_\_ 17516 bytes in 8 file(s) HAMSAT [ HAM: Satellite tracking and finding programs ] AMSAT303.LZH ( 3632 bytes) AMSAT Bulletin # 303 10/30/93 ARLK045.LZH ( 2009 bytes) ARRL Keps 10/30/93 OBS301.LZH ( 5516 bytes) Amsat Orbital Elements # 301 10/282/93 \_\_\_\_\_\_ 11157 bytes in 3 file(s) [ HAM: Shortwave broadcast schedule distribution ] \_\_\_\_\_ SCDX2190.LZH ( 6260 bytes) Sweden Calling DX #2190 11/02/93

6260 bytes in 1 file(s)

```
Files are available via Anonymous-FTP from ftp.fidonet.org
IP NET address 140.98.2.1
   Directories are:
        pub/fidonet/ham/hamnews (Bulletins)
                      /hamant
                                (Antennas)
                      /hamsat
                                (Sat. prg/Amsat Bulletins)
                      /hampack (Packet)
                      /hamelec (Formulas)
                      /hamtrain (Training Material)
                                (Logging Programs)
                      /hamlog
                      /hamcomm (APLink/JvFax/Rtty/etc)
                      /hammods (Equip modification)
                      /hamswl
                                (SWBC Skeds/Frequencies)
                      /hamscan (Scanner Frequencies)
                      /hamutil (Operating aids/utils)
                      /hamsrc
                                (Source code to programs)
                      /hamdemo (Demos of new ham software)
                                (TCP/IP and NOS related software)
                      /hamnos
Files may be downloaded via land-line at (214) 226-1181 or (214) 226-1182.
1.2 to 16.8K, 23 hours a day .
When ask for Full Name, enter: Guest; guest <return>
lee - wa5eha
Ham Distribution Net
* Origin: Ham Distribution Net Coordinator / Node 1 (1:124/7009)
Date: Sun, 07 Nov 1993 21:22:07
From: haven.umd.edu!news.umbc.edu!eff!news.kei.com!news.oc.com!utacfd.uta.edu!
rwsys!ocitor!FredGate@uunet.uu.net
Subject: HDN Releases
To: info-hams@ucsd.edu
The following files were processed Sunday 11-07-93:
HAMDEMO
         [ HAM: Amateur/Scanner/Shortwave Software Demo Progs ]
______
SUD.EXE ( 61824 bytes) Satellite Positioning Program V1.10
```

Total of 34933 bytes in 12 file(s)

| 61824 bytes in 1 file(s)  |  |  |
|---|--|--|
| HAMLOG [ HAM: Amateur radio logging programs ]  |  |  |
| FDDCL201.ARJ ( 93647 bytes) Field Day Log/Dupe Checker by Kevin Myers                             |  |  |
| NONEH.ZIP ( 126361 bytes) Field Day Program by Jim Cambron, NONEH                                 |  |  |
| 220008 bytes in 2 file(s)   |  |  |
| HAMNEWS [ HAM: Bulletins and Newsletters ]  |  |  |
| PART97.ZIP ( 34668 bytes) FCC Rules & Regulations Part 97   |  |  |
| 34668 bytes in 1 file(s)  |  |  |
| HAMPACK [ HAM: Packet Communications programs ]   |  |  |
| TOR302.EXE ( 186496 bytes) PacTor V3.02 by Johan Forrer, KC7WW                                    |  |  |
| 186496 bytes in 1 file(s)   |  |  |
| HAMUTIL [ HAM: Radio operating aids ]   |  |  |
| HCALL100.ZIP ( 9522 bytes) Callsign Server Interface for PCBoard V15.0<->Sam Database, by WD OGRC |  |  |
| 9522 bytes in 1 file(s)   |  |  |
| Total of 512518 bytes in 6 file(s)  |  |  |
| Files are available via Anonymous-FTP from ftp.fidonet.org  |  |  |

IP NET address 140.98.2.1

Directories are:

```
/hamant
                                (Antennas)
                       /hamsat
                                (Sat. prg/Amsat Bulletins)
                       /hampack (Packet)
                       /hamelec (Formulas)
                       /hamtrain (Training Material)
                       /hamlog (Logging Programs)
                       /hamcomm (APLink/JvFax/Rtty/etc)
                       /hammods (Equip modification)
                       /hamswl
                                (SWBC Skeds/Frequencies)
                       /hamscan (Scanner Frequencies)
                       /hamutil (Operating aids/utils)
                       /hamsrc (Source code to programs)
                       /hamdemo (Demos of new ham software)
                                (TCP/IP and NOS related software)
                       /hamnos
Files may be downloaded via land-line at (214) 226-1181 or (214) 226-1182.
1.2 to 16.8K, 23 hours a day .
When ask for Full Name, enter: Guest; guest <return>
lee - wa5eha
Ham Distribution Net
 * Origin: Ham Distribution Net Coordinator / Node 1 (1:124/7009)
______
Date: 8 Nov 93 21:00:03 GMT
From: ogicse!hp-cv!hp-pcd!hpcvsnz!davidc@network.ucsd.edu
Subject: License Datapoints
To: info-hams@ucsd.edu
My wife just passed her exams for a technician amateur license on Nov 5.
How long did it take for those of you who have received new licenses lately
to receive them from the date you took your exam? I have not seen any data
points posted recently.
73
Dave, KB7QCL
______
Date: 8 Nov 1993 11:02:31 GMT
From: agate!howland.reston.ans.net!pipex!sunic!news.lth.se!pomona.tde.lth.se!
```

pub/fidonet/ham/hamnews (Bulletins)

sund@ames.arpa

```
Subject: MorseTrainer for Mac
To: info-hams@ucsd.edu
>And where does one get an executeable version of Stuffit Expander.??
>Erich
>N30XM
Try ftp to sumex-aim.stanford.edu. Look in the compression/ directory.
>>>
Lars Sundstrom, Lund University, Dept.of Applied Electronics
P.O. Box 118, S-221 00 LUND, SWEDEN. EMail: sund@tde.lth.se
Phone: Int+ 46 46 10 95 13 Fax: Int+ 46 46 12 99 48
  -----
Date: Mon, 8 Nov 1993 15:02:03 GMT
From: sdd.hp.com!swrinde!gatech!howland.reston.ans.net!torn!news.ccs.queensu.ca!
venus!pas@decwrl.dec.com
Subject: Observations on Kenwood TH-78
To: info-hams@ucsd.edu
In article <9311071052593.gilbaronw0mn.DLITE@delphi.com>, gilbaronw0mn@delphi.com
(Gilbert Baron) writes:
|> >What about the Yaesu FT-530. Whould that be a comparable rig? Better? or
|> >Worse? Has anyone used the FT-530. Can it be modified? Does the rx range
|>> go below 130 MHz.
|>
> I have a 530 and it does receive the aircraft band. There are to things to
|> think about though. The sensitivity in the aircraft band is abysmal and it
> does require a mod to do that. If you can't unsolder a pad that is only a
|> little bigger than a period on a line of text then be prepared to pay over
|> 100 dollars (they were charging 160 for all dual bands at the recent hamfest
|> in Minneapolis) to have it done for you. That is a rip off and I beleive
|> that Yaesu should be soundly ripped for not shipping the radio with at least
> the wide band recieve enabled. The advertising is EXTREMELY misleading on
|> that.
When I bought my FT530, I negotiated the mod in with the
price and got it effectively for $10. Whoever is charging
over $100 is ripping people off. The mod is very simple;
I just had the store do it so that warranty coverage would
```

not be affected (the store is a Yaesu service center).

Peter

| Peter A. Stokes                         |                                   |
|---|-----------------------------------|
| <b>Engineering Applications Support</b> |                                   |
| Canadian Microelectronics Corpor        | ration Net: pas@jupiter.ic.cmc.ca |
| Kingston, Ontario, CANADA               | Radio: VE3ZX                      |
|   |                                   |

-----

Date: Mon, 8 Nov 1993 13:52:01 GMT

From: nmt.edu!mimbres.cs.unm.edu!moe.ksu.ksu.edu!vixen.cso.uiuc.edu!uwm.edu!linac!

att!cbnewse!parnass@network.ucsd.edu

Subject: Plectron moved to Imboden, Arkansas

To: info-hams@ucsd.edu

To those trying to help find Plectron:

Thanks for your assistance.

I found Plectron by calling Ellen Payne, Associate Editor of Mobile Radio Technology magazine. Plectron's new address is:

Plectron Plectron Place P.O. Box 960 Imboden, Arkansas 72434

telephone 1-(501)869-2877

They still sell monitor receivers, so I sent for product literature. Parts and manuals for their older monitor receivers are also available.

- -

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Copyright 1993, Bob Parnass, AJ9S AT&T Bell Laboratories - parnass@ih4gp.att.com - (708)979-5414

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Date: 8 Nov 93 20:10:02 GMT

From: ogicse!hp-cv!hp-pcd!hpcvsnz!tomb@network.ucsd.edu

Subject: Rebuild NiCd battery for HT

To: info-hams@ucsd.edu

Jessica Jook (jjook@fraser.sfu.ca) (maybe that was Dominic??) wrote:

: Does any one has experience to rebuild the NiCd battery pack for : hand held radio. I would like to make one. Can someone tell me

: where they can buy good NiCd battery cells and what kind of epoxy
: to seal the battery pack. Also, any special things you want to
: remind me, please do so.

Be a little careful trying to replace single cells. The new one is not likely to be well matched with the old ones, particularly if the old ones have been in service a while. Also, there's a question about the cell design: if you look in a DigiKey catalog, you will see quite a number of different types of cell, all the same physical size. (rapid charge, high capacity, high rate of discharge, ...)

If you look in the back pages of QST or CQ, you will find ads from battery places like WW Associates (and two or three others) for replacement battery packs, both complete packs and the "inserts." An "insert" is simply the set of nicads all wired up and packaged in the proper physical configuration. On the Icom pack I've worked on, there were screws to remove to take the pack apart; replacing the insert was straightforward, and no glue was required. I'd expect on almost all packs to find screws or plastic snaps holding it together.

-----

Date: Fri, 05 Nov 1993 12:19:46 GMT

From: haven.umd.edu!news.umbc.edu!europa.eng.gtefsd.com!news.ans.net!

malgudi.oar.net!witch!ame!psl@ames.arpa

Subject: TS 430 as mobile To: info-hams@ucsd.edu

#### Clark -

In article <9311021150.aa25098@paris.ics.uci.edu>, Clark Savage Turner WA3JPG (turner@safety.ICS.UCI.EDU) writes:

>Hello:

> . T

>I just managed to snag the good deal on the TS 430 over on rec.radio.swap >and wondered about the 430 as a mobile rig. I have not used one.

>How sensitive is the final to SWR? How effective is the noise blanker? One at a time! The finals have SWR shutdown protection which does a good job of protecting the finals. They begin to shutdown, I believe, at 2.5:1 SWR. Note, you still have output, just less. The noise blanker isn't the best on the market, but it does a good job. Make sure that your radio has the mod for the noise blanker. You can download this mod from the Kenwood BBS at 1-310-761-8284.

>Does the 430 need an external speaker?

No, but depending on where you mount the radio, you might want one anyway.